



DOCKET NO.: M0925.70139US00

THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Richard R. Schrock et al.  
Serial No: 10/646,355  
Confirmation. No.: 8608  
Filed: August 22, 2003  
For: LIVING OLEFIN POLYMERIZATION PROCESS  
Examiner: Not Yet Assigned  
Art Unit: 1723

CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)

The undersigned hereby certifies that this document is being placed in the United States mail with first-class postage attached, addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the 9 day of January, 2004.

  
Tina Hanifin

Commissioner For Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

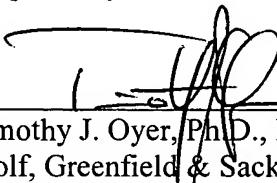
Transmitted herewith are the following documents:

- Information Disclosure Statement
- PTO Form 1449
- Return Receipt Postcard

If the enclosed papers are considered incomplete, the Mail Room and/or the Application Branch is respectfully requested to contact the undersigned at (617) 720-3500, Boston, Massachusetts.

A check is not enclosed. If a fee is required, the Commissioner is hereby authorized to charge Deposit Account No. 23/2825. A duplicate of this sheet is enclosed.

Respectfully submitted,

By:   
Timothy J. Oyer, PhD., Reg. No.: 36,628  
Wolf, Greenfield & Sacks, P.C.  
600 Atlantic Avenue  
Boston, Massachusetts 02210-2211  
Telephone: (617)720-3500

xNDDx

761115.1



Attorney's Docket No.: M00925.70139US00 TJO

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Richard R. Schrock et al.  
Serial No: 10/646,355  
Confirmation No: 8608  
Filed: August 22, 2003  
For: LIVING OLEFIN POLYMERIZATION PROCESS  
Examiner: Not Yet Assigned  
Art Unit: 1723

---

**CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)**

The undersigned hereby certifies that this document is being placed in the United States mail with first-class postage attached, addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450, on the 9 day of January, 2004.

  
\_\_\_\_\_  
Signature

Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

**STATEMENT FILED PURSUANT TO THE DUTY OF  
DISCLOSURE UNDER 37 CFR §§1.56, 1.97 AND 1.98**

Sir:

Pursuant to the duty of disclosure under 37 C.F.R. §§1.56, 1.97 and 1.98, the Applicants request consideration of this Information Disclosure Statement.

**PART I: Compliance with 37 C.F.R. §1.97**

A. This Information Disclosure Statement has been filed before the mailing date of a first Office Action on the merits in the above-identified case. No fee or certification is required.

**PART II: Information Cited**

A. The Applicants hereby make of record in the above-identified application the information listed on the attached form PTO-1449 (modified). The order of presentation of the references should not be construed as an indication of the importance of the references.

B. The Applicants hereby make the following additional information of record in the above-identified application.

PART III: Remarks

Documents cited anywhere in the Information Disclosure Statement are enclosed unless otherwise indicated. It is respectfully requested that:

1. The Examiner consider completely the cited information, along with any other information, in reaching a determination concerning the patentability of the present claims;
2. The enclosed form PTO-1449 be signed by the Examiner to evidence that the cited information has been fully considered by the Patent and Trademark Office during the examination of this application;
3. The citations for the information be printed on any patent which issues from this application.

By submitting this Information Disclosure Statement, the Applicants make no representation that a search has been performed, of the extent of any search performed, or that more relevant information does not exist.

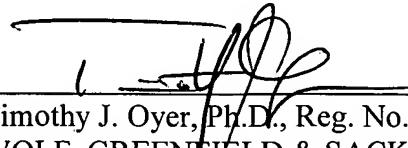
By submitting this Information Disclosure Statement, the Applicants make no representation that the information cited in the Statement is, or is considered to be, material to patentability as defined in 37 C.F.R. §1.56(b).

By submitting this Information Disclosure Statement, the Applicants make no representation that the information cited in the Statement is, or is considered to be, in fact, prior art as defined by 35 U.S.C. §102.

Notwithstanding any statements by the Applicants, the Examiner is urged to form his own conclusion regarding the relevance of the cited information.

An early and favorable action is hereby requested.

Respectfully submitted,  
**Richard R. Schrock et al., Applicants**

By: 

Timothy J. Oyer, Ph.D., Reg. No. 36,628  
WOLF, GREENFIELD & SACKS, P.C.  
600 Atlantic Avenue  
Boston, Massachusetts 02210-2211  
Telephone: (617) 720-3500

Docket No. M00925/70139 TJO

Date: January 9, 2004

INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT

JAN 12 2004

Sheet



1

3

APPLICATION NO.: 10/646,355

ATTY. DOCKET NO.:M00925/70139US00  
TJO

FILING DATE: August 22, 2003

CONFIRMATION NO.: 8608

APPLICANT: Richard R. Schrock et al.

GROUP ART UNIT: 1723

EXAMINER: Not Yet Assigned

## U.S. PATENT DOCUMENTS

Examiner's Initials	Cite No.	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication or of issue of Cited Document MM-DD-YYYY
		Number	Kind Code		
	*	4,480,075		Willis	10/30/1984
	*	4,681,956		Schrock	07/21/1987
	*	4,752,597		Turner	06/21/1988
	*	4,791,180		Turner	12/13/1988
	*	4,882,406		Cozewith et al.	11/21/1989
	*	4,959,436		Cozewith et al.	09/25/1990
	*	5,026,798		Canich	06/25/1991
	*	5,079,205		Canich	01/07/1992
	*	5,502,124		Crowther et al.	03/26/1996
	*	5,504,049		Crowther et al.	04/02/1996
	*	5,196,491		Cho et al.	03/23/1993
	*	5,281,368		Dias et al.	01/25/1994
	*	5,318,935		Canich et al.	06/07/1994
	*	5,391,629		Turner et al.	02/21/1995
	*	5,399,626		Erickson et al.	03/21/1995
	*	5,422,409		Brekner et al.	06/06/1995
	*	5,427,991		Turner	06/27/1995
	*	5,438,102		Brandes et al.	08/01/1995
	*	5,444,145		Brandt et al.	08/22/1995
	*	5,475,075		Brandt et al.	12/12/1995
	*	5,476,915		Shea et al.	12/19/1995
	*	5,489,651		Novak et al.	02/06/1996
	*	5,599,761		Turner	02/04/1997
	*	5,602,219		Aulbach et al.	02/11/1997
	*	5,610,253		Hatke et al.	03/11/1997
	*	5,612,428		Winter et al.	03/18/1997
	*	5,621,126		Canich et al.	04/15/1997
	*	5,635,573		Harrington et al.	06/03/1997
	*	5,693,730		Kuber et al.	12/02/1997

\*a copy of this reference is not provided as it was previously cited by or submitted to the office in one or more of prior applications, Serial No. 09/935,775, filed August 23, 2001, Serial No. 09/307,241, filed March 4, 1999, or Serial No. 08/843,161, filed April 11, 1997, and relied upon for an earlier filing date under 35 U.S.C. 120 (continuation, continuation-in-part, and divisional applications).

EXAMINER

DATE CONSIDERED

#EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



FORM PTO-1449/A and <del>REPLACEMENT</del> INFORMATION DISCLOSURE STATEMENT BY APPLICANT				APPLICATION NO.: 10/646,3555	ATTY. DOCKET NO.:M00925.70139US00 TJO
				FILING DATE: August 22, 2003	CONFIRMATION NO.: 8608
				APPLICANT: Richard R. Schrock et al.	
				GROUP ART UNIT: 1723	EXAMINER: Not Yet Assigned
Sheet	2	of	3		

#### U.S. PATENT DOCUMENTS

Examiner's Initials	Cite No.	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication or of issue of Cited Document MM-DD-YYYY
		Number	Kind Code		
	*	5,698,645		Weller et al.	12/16/1997
	*	5,723,560		Canich	03/03/1998
	*	5,741,868		Winter et al.	04/21/1998
	*	5,763,556		Shaffer et al.	06/09/1998
	*	5,789,474		Lu et al.	08/04/1998
	*	5,840,808		Sugimura et al.	11/24/1998
	*	5,889,128		Schrock et al.	03.30.1999
	*	6,255,419	B1	Imuta et al.	07.03.2001
	*	6,271,325	B1	McConville et al.	08/07/2001
	*	6,316,555	B1	Schrock et al.	11.13.2001
	*	US2001/0041778	A1	McConville et al.	11/15/2001

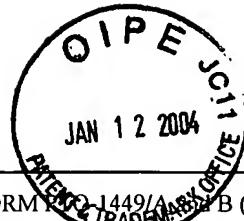
#### FOREIGN PATENT DOCUMENTS

Examiner's Initials	Cite No.	Foreign Patent Document			Name of Patentee or Applicant of Cited Document (not necessary)	Date of Publication of Cited Document MM-DD-YYYY	Translation (Y/N)
		Office/ Country	Number	Kind Code			
	*	EP	0 893 454	A1	Mitsui Chemicals, Inc.	01/27/1999	
	*	JP	8081415A		UBE IND LTD (UBEI)	03.26.1996	
	*	WO	91/12285		Exxon Chemical Patents, Inc.	08/22/1991	
	*	WO	92/12162		Exxon Chemical Patents, Inc.	07/23/1992	
	*	WO	94/21700		Exxon Chemical Patents, Inc.	09/29/1994	
	*	WO	97/42197		Societe de Conseils de Recherches et D'Applications Scientifiques	11/13/1997	
	*	WO	98/46651		Massachusetts Institute of Technology	10/22/1998	
	*	WO	00/69922	A2	UNIVATION TECHNOLOGIES, LLC	11.23.2000	

\*a copy of this reference is not provided as it was previously cited by or submitted to the office in one or more of prior applications, Serial No. 09/935,775, filed August 23, 2001, Serial No. 09/307,241, filed March 4, 1999, or Serial No. 08/843,161, filed April 11, 1997, and relied upon for an earlier filing date under 35 U.S.C. 120 (continuation, continuation-in-part, and divisional applications).

EXAMINER	DATE CONSIDERED
----------	-----------------

#EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



FORM PTO-1449/A TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT				APPLICATION NO.: 10/646,355	ATTY. DOCKET NO.: M0925.70139US00 TJO
				FILING DATE: August 22, 2003	CONFIRMATION NO.: 8608
				APPLICANT: Richard R. Schrock et al.	
Sheet	3	of	3	GROUP ART UNIT: 1723	EXAMINER: Not Yet Assigned

#### OTHER ART — NON PATENT LITERATURE DOCUMENTS

Examiner's Initials	Cite No	Include name of the author (in CAPITAL LETTERS) title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, relevant page(s), volume-issue number(s), publisher, city and/or country where published.	Translation (Y/N)
	*	GUERIN et al., "Conformationally Rigid Diamide Complexes: Synthesis and Structure of Titanium(IV) Alkyl Derivatives", <i>Organometallics</i> , Vol. 15, No. 24, 1996, pp. 5085-5089.	
	*	GUERIN, F. et al., "Synthesis, Structure, and Reactivity of Zirconium Alkyl Complexes Bearing Ancillary Pyridine Diamide Ligands," <i>Organometallics</i> 1998, Vol. 17, No. 23, pp. 5172-5177.	
	*	BAUMANN et al., "Synthesis of Titanium and Zirconium Complexes that Contain the Tridentate Diamido Ligand, $[(t\text{-Bu-d}_6\text{N}\text{-o-C}_6\text{H}_4)_2\text{O}]^2\text{-[NON]}^2$ ) and the Living Polymerization of 1-Hexene by Activated $[\text{NON}]\text{ZrMe}_2$ ", <i>J. Am. Chem. Soc.</i> , Vol. 119, No. 16, 1997, pp. 3830-3831.	
	*	CLOKE et al., "Zirconium Complexes Incorporating the New Tridentate Diamide Ligand $[(\text{Me}_3\text{Si})\text{N}\{\text{CH}_2\text{CH}_2\text{N}(\text{SiMe}_3)\}_2]^2\text{-}(\text{L})$ ; the Crystal Structures of $[\text{Zr}(\text{BH}_4)_2\text{L}]$ and $[\text{ZrCl}\{\text{CH}(\text{SiMe}_3)_2\}\text{L}]$ ", <i>J. Am. Chem. Soc. Dalton Trans.</i> , 1995, pp. 25-30.	
	*	CLARK et al., "Titanium(IV) complexes incorporating the aminodiamide ligand $[(\text{SiMe}_3)\text{N}\{\text{CH}_2\text{CH}_2\text{N}(\text{SiMe}_3)\}_2]^2\text{-}(\text{L})$ ; the X-ray crystal structures of $[\text{TiMe}_2(\text{L})]$ and $[\text{TiCl}\{\text{CH}(\text{SiMe}_3)_2\}(\text{L})]$ ", <i>Journal of Organometallic Chemistry</i> , Vol. 501, 1995, pp. 333-340.	
	*	HORTON et al., "Cationic Alkylzirconium Complexes Based on a Tridentate Diamide Ligand: New Alkene Polymerization Catalysts", <i>Organometallics</i> , Vol. 15, No. 12, 1996, pp. 2672-2674.	
	*	YASUO, "Production of Alkenecarboxylic Acid Ester", <i>Patent Abstracts of Japan</i> , Publication No. 08081415, Publication Date. March 26, 1996.	
	*	DI SILVESTRO et al., "Polymerization of propene with enantiomeric site catalysts, I A statistical analysis", <i>Macromol. Chem. Phys.</i> , Vol. 197, 1996, pp. 3209-3228.	
	*	SCOLLARD et al., "Living Polymerization of $\alpha$ -Olefins by Chelating Diamide Complexes of Titanium", <i>J. Am. Chem. Soc.</i> , Vol. 118, No. 41, 1996, pp. 10008-10009.	
	*	STOVENG et al., "Influence of rotation between agostic structures on ethene interaction with a zirconocene polymerization site", <i>Journal of Organometallic Chemistry</i> , Vo. 519, 1996, pp. 205-208.	
	*	BEI, X. et al., "Synthesis, Structures, Bonding, and Ethylene Reactivity of Group 4 Metal Alkyl Complexes Incorporating 8-Quinolinolato Ligands," <i>Organometallics</i> 1997, Vol. 16, No. 15, pp. 3282-3302.	
	*	REPO, T. et al., "Ethylenebis(salicylideneiminato)zirconium Dichloride: Crystal Structure and Use as a Heterogeneous Catalyst in the Polymerization of Ethylene," <i>Macromolecules</i> 1997, Vol. 30, No. 2, pp. 171-175.	

\*a copy of this reference is not provided as it was previously cited by or submitted to the office in one or more of prior applications, Serial No. 09/935,775, filed August 23, 2001, Serial No. 09/307,241, filed March 4, 1999, or Serial No. 08/843,161, filed April 11, 1997, and relied upon for an earlier filing date under 35 U.S.C. 120 (continuation, continuation-in-part, and divisional applications).

EXAMINER	DATE CONSIDERED
----------	-----------------

#EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.